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36  
5/15/02



TECH CENTER 1600/2900

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/522,753B

DATE: 05/01/2002

TIME: 13:00:12

Input Set : A:\Salk1510.app

Output Set: N:\CRF3\05012002\I522753B.raw

3 <110> APPLICANT: EVANS, RONALD M.  
4 CHEN, J. DON  
5 ORDENTLICH, PETER  
6 DOWNES, MICHAEL R.  
8 <120> TITLE OF INVENTION: FAMILY OF TRANSCRIPTIONAL CO-REPRESSORS THAT INTERACT  
9 WITH NUCLEAR HORMONE RECEPTORS AND USES THEREFOR  
11 <130> FILE REFERENCE: SALK1510-3  
13 <140> CURRENT APPLICATION NUMBER: 09/522,753B  
14 <141> CURRENT FILING DATE: 2000-03-10  
16 <150> PRIOR APPLICATION NUMBER: 08/522,726  
17 <151> PRIOR FILING DATE: 1995-09-01  
19 <160> NUMBER OF SEQ ID NOS: 52  
21 <170> SOFTWARE: PatentIn Ver. 2.1  
23 <210> SEQ ID NO: 1  
24 <211> LENGTH: 1495  
25 <212> TYPE: PRT  
26 <213> ORGANISM: Homo sapiens  
28 <400> SEQUENCE: 1  
29 Met Glu Ala Trp Asp Ala His Pro Asp Lys Glu Ala Phe Ala Ala Glu  
30 1 5 10 15  
32 Ala Gln Lys Leu Pro Gly Asp Pro Pro Cys Trp Thr Ser Gly Leu Pro  
33 20 25 30  
35 Phe Pro Val Pro Pro Arg Glu Val Ile Lys Ala Ser Pro His Ala Pro  
36 35 40 45  
38 Asp Pro Ser Ala Phe Ser Tyr Ala Pro Pro Gly His Pro Leu Pro Leu  
39 50 55 60  
41 Gly Leu His Asp Thr Ala Arg Pro Val Leu Pro Arg Pro Pro Thr Ile  
42 65 70 75 80  
44 Ser Asn Pro Pro Pro Leu Ile Ser Ser Ala Lys His Pro Ser Val Leu  
45 85 90 95  
47 Glu Arg Gln Ile Gly Ala Ile Ser Gln Gly Met Ser Val Gln Leu His  
48 100 105 110  
50 Val Pro Tyr Ser Glu His Ala Lys Ala Pro Val Gly Pro Val Thr Met  
51 115 120 125  
53 Gly Leu Pro Leu Pro Met Asp Pro Lys Lys Leu Ala Pro Phe Ser Gly  
54 130 135 140  
56 Val Lys Gln Glu Gln Leu Ser Pro Arg Gly Gln Ala Gly Pro Pro Glu  
57 145 150 155 160  
59 Ser Leu Gly Val Pro Thr Ala Gln Glu Ala Ser Val Leu Arg Gly Thr  
60 165 170 175  
62 Ala Leu Gly Ser Val Pro Gly Gly Ser Ile Thr Lys Gly Ile Pro Ser  
63 180 185 190  
65 Thr Arg Val Pro Ser Asp Ser Ala Ile Thr Tyr Arg Gly Ser Ile Thr

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66	195	200	205
68	His Gly Thr Pro Ala Asp Val Leu Tyr Lys Gly Thr Ile Thr Arg Ile		
69	210	215	220
71	Ile Gly Glu Asp Ser Pro Ser Arg Leu Asp Arg Gly Arg Glu Asp Ser		
72	225	230	235
74	240		
75	Leu Pro Lys Gly His Val Ile Tyr Glu Gly Lys Lys Gly His Val Leu		
77	245	250	255
78	Ser Tyr Glu Gly Gly Met Ser Val Thr Gln Cys Ser Lys Glu Asp Gly		
78	260	265	270
80	Arg Ser Ser Gly Pro Pro His Glu Thr Ala Ala Pro Lys Arg Thr		
81	275	280	285
83	Tyr Asp Met Met Glu Gly Arg Val Gly Arg Ala Ile Ser Ser Ala Ser		
84	290	295	300
86	Ile Glu Gly Leu Met Gly Arg Ala Ile Pro Pro Glu Arg His Ser Pro		
87	305	310	315
89	320		
90	His His Leu Lys Glu Gln His His Ile Arg Gly Ser Ile Thr Gln Gly		
92	325	330	335
93	Ile Pro Arg Ser Tyr Val Glu Ala Gln Glu Asp Tyr Leu Arg Arg Glu		
93	340	345	350
95	Ala Lys Leu Leu Lys Arg Glu Gly Thr Pro Pro Pro Pro Pro Pro Ser		
96	355	360	365
98	Arg Asp Leu Thr Glu Ala Tyr Lys Thr Gln Ala Leu Gly Pro Leu Lys		
99	370	375	380
101	Leu Lys Pro Ala His Glu Gly Leu Val Ala Thr Val Lys Glu Ala Gly		
102	385	390	395
102	400		
104	Arg Ser Ile His Glu Ile Pro Arg Glu Glu Leu Arg His Thr Pro Glu		
105	405	410	415
107	Leu Pro Leu Ala Pro Arg Pro Leu Lys Glu Gly Ser Ile Thr Gln Gly		
108	420	425	430
110	Thr Pro Leu Lys Tyr Asp Thr Gly Ala Ser Thr Thr Gly Ser Lys Lys		
111	435	440	445
113	His Asp Val Arg Ser Leu Ile Gly Ser Pro Gly Arg Thr Phe Pro Pro		
114	450	455	460
116	Val His Pro Leu Asp Val Met Ala Asp Ala Arg Ala Leu Glu Arg Ala		
117	465	470	475
117	480		
119	Cys Tyr Glu Glu Ser Leu Lys Ser Arg Pro Gly Thr Ala Ser Ser Ser		
120	485.	490	495
122	Gly Gly Ser Ile Ala Arg Gly Ala Pro Val Ile Val Pro Glu Leu Gly		
123	500	505	510
125	Lys Pro Arg Gln Ser Pro Leu Thr Tyr Glu Asp His Gly Ala Pro Phe		
126	515	520	525
128	Ala Gly His Leu Pro Arg Gly Ser Pro Val Thr Met Arg Glu Pro Thr		
129	530	535	540
131	Pro Arg Leu Gln Glu Gly Ser Leu Ser Ser Ser Lys Ala Ser Gln Asp		
132	545	550	555
132	560		
134	Arg Lys Leu Thr Ser Thr Pro Arg Glu Ile Ala Lys Ser Pro His Ser		
135	565	570	575
137	Thr Val Pro Glu His His Pro His Pro Ile Ser Pro Tyr Glu His Leu		
138	580	585	590

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140 Leu Arg Gly Val Ser Gly Val Asp Leu Tyr Arg Ser His Ile Pro Leu  
141 595 600 605  
143 Ala Phe Asp Pro Thr Ser Ile Pro Arg Gly Ile Pro Leu Asp Ala Ala  
144 610 615 620  
146 Ala Ala Tyr Tyr Leu Pro Arg His Leu Ala Pro Asn Pro Thr Tyr Pro  
147 625 630 635 640  
149 His Leu Tyr Pro Pro Tyr Leu Ile Arg Gly Tyr Pro Asp Thr Ala Ala  
150 645 650 655  
152 Leu Glu Asn Arg Gln Thr Ile Ile Asn Asp Tyr Ile Thr Ser Gln Gln  
153 660 665 670  
155 Met His His Asn Thr Ala Thr Ala Met Ala Gln Arg Ala Asp Met Leu  
156 675 680 685  
158 Arg Gly Leu Ser Pro Arg .Glu Ser Ser Leu Ala Leu Asn Tyr Ala Ala  
159 690 695 700  
161 Gly Pro Arg Gly Ile Ile Asp Leu Ser Gln Val Pro His Leu Pro Val  
162 705 710 715 720  
164 Leu Val Pro Pro Thr Pro Gly Thr Pro Ala Thr Ala Met Asp Arg Leu  
165 725 730 735  
167 Ala Tyr Leu Pro Thr Ala Pro Gln Pro Phe Ser Ser Arg His Ser Ser  
168 740 745 750  
170 Ser Pro Leu Ser Pro Gly Gly Pro Thr His Leu Thr Lys Pro Thr Thr  
171 755 760 765  
173 Thr Ser Ser Ser Glu Arg Glu Arg Asp Arg Asp Arg Glu Arg Asp Arg  
174 770 775 780  
176 Asp Arg Glu Arg Glu Lys Ser Ile Leu Thr Ser Thr Thr Val Glu  
177 785 790 795 800  
179 His Ala Pro Ile Trp Arg Pro Gly Thr Glu Gln Ser Ser Gly Ser Ser  
180 805 810 815  
182 Gly Ser Ser Gly Gly Gly Ser Ser Ser Arg Pro Ala Ser His  
183 820 825 830  
185 Ser His Ala His Gln His Ser Pro Ile Ser Pro Arg Thr Gln Asp Ala  
186 835 840 845  
188 Leu Gln Gln Arg Pro Ser Val Leu His Asn Thr Gly Met Lys Gly Ile  
189 850 855 860  
191 Ile Thr Ala Val Glu Pro Ser Lys Pro Thr Val Leu Arg Ser Thr Ser  
192 865 870 875 880  
194 Thr Ser Ser Pro Val Arg Pro Ala Ala Thr Phe Pro Pro Ala Thr His  
195 885 890 895  
197 Cys Pro Leu Gly Gly Thr Leu Asp Gly Val Tyr Pro Thr Leu Met Glu  
198 900 905 910  
200 Pro Val Leu Leu Pro Lys Glu Ala Pro Arg Val Ala Arg Pro Glu Arg  
201 915 920 925  
203 Pro Arg Ala Asp Thr Gly His Ala Phe Leu Ala Lys Pro Pro Ala Arg  
204 930 935 940  
206 Ser Gly Leu Glu Pro Ala Ser Ser Pro Ser Lys Gly Ser Glu Pro Arg  
207 945 950 955 960  
209 Pro Leu Val Pro Pro Val Ser Gly His Ala Thr Ile Ala Arg Thr Pro  
210 965 970 975  
212 Ala Lys Asn Leu Ala Pro His His Ala Ser Pro Asp Pro Pro Ala Pro

**RAW SEQUENCE LISTING**  
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**Input Set : A:\Salk1510.app**  
**Output Set: N:\CRF3\05012002\I522753B.raw**

213	980	985	990	
215	Pro Ala Ser Ala Ser Asp Pro His Arg Glu Lys Thr Gln Ser Lys Pro			
216	995	1000	1005	
218	Phe Ser Ile Gln Glu Leu Glu Leu Arg Ser Leu Gly Tyr His Gly Ser			
219	1010	1015	1020	
221	Ser Tyr Ser Pro Glu Gly Val Glu Pro Val Ser Pro Val Ser Ser Pro			
222	1025	1030	1035	1040
224	Ser Leu Thr His Asp Lys Gly Leu Pro Lys His Leu Glu Glu Leu Asp			
225	1045	1050	1055	
227	Lys Ser His Leu Glu Gly Glu Leu Arg Pro Lys Gln Pro Gly Pro Val			
228	1060	1065	1070	
230	Lys Leu Gly Gly Glu Ala Ala His Leu Pro His Leu Arg Pro Leu Pro			
231	1075	1080	1085	
233	Glu Ser Gln Pro Ser Ser Ser Pro Leu Leu Gln Thr Ala Pro Gly Val			
234	1090	1095	1100	
236	Lys Gly His Gln Arg Val Val Thr Leu Ala Gln His Ile Ser Glu Val			
237	1105	1110	1115	1120
239	Ile Thr Gln Asp Tyr Thr Arg His His Pro Gln Gln Leu Ser Ala Pro			
240	1125	1130	1135	
242	Leu Pro Ala Pro Leu Tyr Ser Phe Pro Gly Ala Ser Cys Pro Val Leu			
243	1140	1145	1150	
245	Asp Leu Arg Arg Pro Pro Ser Asp Leu Tyr Leu Pro Pro Pro Asp His			
246	1155	1160	1165	
248	Gly Ala Pro Ala Arg Gly Ser Pro His Ser Glu Gly Gly Lys Arg Ser			
249	1170	1175	1180	
251	Pro Glu Pro Asn Lys Thr Ser Val Leu Gly Gly Glu Asp Gly Ile			
252	1185	1190	1195	1200
254	Glu Pro Val Ser Pro Pro Glu Gly Met Thr Glu Pro Gly His Ser Arg			
255	1205	1210	1215	
257	Ser Ala Val Tyr Pro Leu Leu Tyr Arg Asp Gly Glu Gln Thr Glu Pro			
258	1220	1225	1230	
260	Ser Arg Met Gly Ser Lys Ser Pro Gly Asn Thr Ser Gln Pro Pro Ala			
261	1235	1240	1245	
263	Phe Phe Ser Lys Leu Thr Glu Ser Asn Ser Ala Met Val Lys Ser Lys			
264	1250	1255	1260	
266	Lys Gln Glu Ile Asn Lys Lys Leu Asn Thr His Asn Arg Asn Glu Pro			
267	1265	1270	1275	1280
269	Glu Tyr Asn Ile Ser Gln Pro Gly Thr Glu Ile Phe Asn Met Pro Ala			
270	1285	1290	1295	
272	Ile Thr Gly Thr Gly Leu Met Thr Tyr Arg Ser Gln Ala Val Gln Glu			
273	1300	1305	1310	
275	His Ala Ser Thr Asn Met Gly Leu Glu Ala Ile Ile Arg Lys Ala Leu			
276	1315	1320	1325	
278	Met Gly Lys Tyr Asp Gln Trp Glu Glu Ser Pro Pro Leu Ser Ala Asn			
279	1330	1335	1340	
281	Ala Phe Asn Pro Leu Asn Ala Ser Ala Ser Leu Pro Ala Ala Met Pro			
282	1345	1350	1355	1360
284	Ile Thr Ala Ala Asp Gly Arg Ser Asp His Thr Leu Thr Ser Pro Gly			
285	1365	1370	1375	

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Input Set : A:\Salk1510.app  
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287 Gly Gly Gly Lys Ala Lys Val Ser Gly Arg Pro Ser Ser Arg Lys Ala  
288 1380 1385 1390  
290 Lys Ser Pro Ala Pro Gly Leu Ala Ser Gly Asp Arg Pro Pro Ser Val  
291 1395 1400 1405  
293 Ser Ser Val His Ser Glu Gly Asp Cys Asn Arg Arg Thr Pro Leu Thr  
294 1410 1415 1420  
296 Asn Arg Val Trp Glu Asp Arg Pro Ser Ser Ala Gly Ser Thr Pro Phe  
297 1425 1430 1435 1440  
299 Pro Tyr Asn Pro Leu Ile Met Arg Leu Gln Ala Gly Val Met Ala Ser  
300 1445 1450 1455  
302 Pro Pro Pro Gly Leu Pro Ala Gly Ser Gly Pro Leu Ala Gly Pro  
303 1460 1465 1470  
305 His His Ala Trp Asp Glu Glu Pro Lys Pro Leu Leu Cys Ser Gln Tyr  
306 1475 1480 1485  
308 Glu Thr Leu Ser Asp Ser Glu  
309 1490 1495  
312 <210> SEQ ID NO: 2  
313 <211> LENGTH: 46  
314 <212> TYPE: PRT  
315 <213> ORGANISM: Homo sapiens  
317 <400> SEQUENCE: 2  
318 His Ser Asp Val Ser Glu Ser Lys Arg Lys Arg Phe Glu Leu Asn Ser  
319 1 5 10 15  
321 Gly Glu Ala Gly Gly Asn Ala Thr Ser Ala Met Thr Asn Ser Ser Thr  
322 20 25 30  
324 Ser Gly Ser Met Asn Ile Ser Asn Ser His Gly Leu Lys Ala  
325 35 40 45  
328 <210> SEQ ID NO: 3  
329 <211> LENGTH: 17  
330 <212> TYPE: DNA  
331 <213> ORGANISM: Saccharomyces sp.  
333 <400> SEQUENCE: 3  
334 cggaggactg tcctccg 17  
337 <210> SEQ ID NO: 4  
338 <211> LENGTH: 8561  
339 <212> TYPE: DNA  
340 <213> ORGANISM: Homo sapiens  
342 <400> SEQUENCE: 4  
343 catgtcgggc tccacacagc ttgtggcaca gacgtggagg gccactgagc cccgctaccc 60  
344 gccccacagc ctttcctacc cagtgcagat cgcccgacg cacacggacg tcgggctct 120  
345 ggagtaccag caccactccc gcgactatgc ctcccacctg tcgccccggct ccatcatcca 180  
346 gccccagcgg cggaggccct ccctgctgtc tgagttccag cccggaaatg aacggtccca 240  
347 ggagctccac ctgcgccag agtcccactc atacctgccc gagctgggaa agtcagagat 300  
348 ggagttcatt gaaagcaagc gcccctggct agagctgctg cctgaccccc tgctgcgacc 360  
349 gtcacccctg ctggccacgg gccagctgc gggatctgaa gacctcacca aggaccgtag 420  
350 cctgacgggc aagcttgaac cggtgtctcc ccccaaaaaa ccgcacactg accctgagct 480  
351 ggagctggtg ccgcccacggc tgtccaaggaa ggagctgatc cagaacatgg accgcgtgga 540  
352 ccgagagatc accatggtag agcagcagat ctctaagctg aagaagaagc agcaacagct 600  
353 ggaggaggag gctgccaagc cgcccgagcc tgagaagcccc gtgtcaccgc cgcccatcga 660

RAW SEQUENCE LISTING ERROR SUMMARY                   DATE: 05/01/2002  
PATENT APPLICATION: US/09/522,753B               TIME: 13:00:13

Input Set : A:\Salk1510.app  
Output Set: N:\CRF3\05012002\I522753B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; N Pos. 109,8173,8180,8302,8343,8359,8384

Seq#:8; N Pos. 7250,7257,7379,7420,7436,7461

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Input Set : A:\Salk1510.app  
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L:1011 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:60  
L:1146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:8160  
L:1148 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:8280  
L:1149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:8340  
L:1780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:7200  
L:1782 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:7320  
L:1783 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:7380  
L:1784 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:7440